

**County of Los Angeles**  
**WORK ORDER SOLICITATION**  
**TESMA SERVICE CATEGORY (A)**  
THIS IS NOT AN ORDER

☒ **Low Cost**  
☐ **Evaluation**

Project Name: **BOS Media Wall Implementation**  
Program Manager: **Lorenzo Villanueva**  
Category: **A, Building and Video Teleconferencing System (4),  
Video Teleconferencing Systems (b)**

Project No: **TA568**  
Lease Schedule: **N/A**

ITEMS AND/OR SERVICES ARE FOR DELIVERY TO: **BOS Hearing Room**  
**500 W. Temple Street, Los Angeles 90012**  
**ATT: Lorenzo Villanueva**

**CLOSING DATE: February 26, 2019** (Must be submitted by e-mail by 12:00 noon. County will reject bids time-stamped after 12:00 noon on the closing date. E-mail submissions time-stamped upon mailing prior to and including 12:00 noon on the closing date will be accepted, even if arriving after the deadline at County e-mail facilities).

**SCHEDULE OF EVENTS: See paragraph 2.0, Schedule of Events, of the Statement of Work (SOW).**

The Internal Services Department (ISD) has issued this Work Order Solicitation (WOS) in order to complete the project specified in the SOW. Please submit response/pricing information using Attachment A. Bidder's questions arising during the solicitation of this project should be directed to the individual, named below, to whom your bid responses are being sent.

Responses shall be submitted by e-mail to Brianna Cuellar, [tesma@isd.lacounty.gov](mailto:tesma@isd.lacounty.gov). If the signature graphic cannot be sent by e-mail, the signature page only may be faxed to the following:

TESMA  
Attention: Brianna Cuellar  
Fax: 562-401-9494  
Phone: 562-940-2974

**Faxed submission of entire bid responses shall not be accepted. Full bid responses submitted on any other media, such as paper or CD/DVD, shall not be accepted. Only e-mail responses will be accepted.**

Late Responses

Late responses will not be considered and rejected late responses will be returned to the Eligible Contractor.

Information

Inquiries from Eligible Contractors regarding the solicitation and selection process should be directed to the TESMA analyst. Following execution of a Work Order, a meeting shall be scheduled with the Selected Contractor to discuss details of the implementation.

The Selected Contractor shall honor its price quotation, submitted as Attachment A, until final project acceptance by County, provided that County issues a Work Order to the Contractor within 90 days from the date of selection.

TESMA Requirements

Only TESMA Eligible Contractors that are qualified for the System Classification Group(s) and Product Line(s) applicable to this project may respond to this WOS. All responses submitted shall be in accordance with provisions and conditions of

the Los Angeles County Telecommunications Equipment and Services Master Agreement (TESMA), except as otherwise specified herein.

A Work Order will be executed for this project. The terms and conditions of the Work Order will prevail over any conflicting terms and conditions of the Purchase Order that is used to encumber funds for this project. A Purchase Order is issued for County's internal purposes and to encumber funds. It is not a purchase authorization for the selected Contractor.

All Eligible Contractors have signed the Master Agreement. As provided in Section 2.6 of the TESMA Request for Statement of Qualifications, this "constitutes acknowledgement of, acceptance of, and a willingness to comply with, all terms and conditions of the Master Agreement." The terms and conditions of individual TESMA contracts may not vary from those of the Master Agreement signed by every Eligible Contractor. Submission of a Work Order bid response with any exceptions to County's Master Agreement terms and conditions and any attempt to take exception to the Work Order terms and conditions will be cause for disqualification of the bid.

#### Eligible Contractor's Conference

**Attendance at the Eligible Contractor's Conference is mandatory.** Unless otherwise stated herein, a mandatory job site walk will be conducted in conjunction with the conference. Questions asked at the Eligible Contractor's Conference and/or site walk, which may affect the scope of this WOS, shall be answered in writing by a formal addendum to this WOS. The Eligible Contractor's Conference shall be held at:

Date: February 14, 2019  
Time: 10:00 a.m.  
Place: 9150 E. Imperial Hwy.  
Downey, CA 90063  
Conference Room G81 (meet at the lobby)

The potential Eligible Contractors are to meet Lorenzo Villanueva, County Project Manager, at the Conference Room

#### Amending the WOS

If this WOS must be amended, a formal addendum shall be issued to Eligible Contractors in writing.

Oral communications from County personnel concerning the WOS are not binding on County and shall in no way excuse the selected Contractor of obligations as set forth in the WOS unless the WOS has been formally amended.

#### General Instructions

Quote price on each item F.O.B. Destination and exclusive of sales/use tax (see "California Sales Tax Registration"). There shall be no substitution of manufacturers specified in this WOS.

Quote must state manufacturer's brand name and model number.

State your cash discount for prompt payment (2/30, N/30, etc.) \_\_\_\_\_.

Cash discount of less than 30 days or 25<sup>th</sup> prox. shall be considered for prompt payment only.

Include the name of your company and WOS Number in the header on each and every page of your response and on all other documents included with your submission.

**Contractor or Subcontractor shall be an authorized Planar dealer/reseller and shall be a manufacturer's certified installer and meet the following Qualifications:**

- **Info Comm Integrator Industry Certification (APEX)**
- **Authorized / Preferred integrator of the selected vendor**
- **Certified installer of selected vendor product**
- **BICSI International Standards Program certified**
- **CTS (Certified Technology Specialist)**
- **CTS-D (Certified Technology Specialist - Design)**

• **DMC-T (DigitalMedia Certified Technician)**

**With the bid response, proof of Contractor or Subcontractor meeting ALL qualifications shall be submitted.**

Selection of the Winning Eligible Contractor

Selection of the winning Eligible Contractor for this WOS shall be based on the lowest priced bid of a qualified responsible and responsive Contractor.

Financing

When Eligible Contractor financing is required, the equipment and associated services as stated herein are to be financed in accordance with previously agreed terms and conditions contained in the MUNICIPAL LEASE WITH OPTION TO PURCHASE AGREEMENT. The provisions contained therein are not negotiable and any response with any exceptions shall be deemed to be "non-responsive." Refer to Section 14.0, Financing, of the SOW for instructions pertaining to this WOS.

CAL/OSHA – Statement of Compliance

The items offered must meet all applicable local, state and federal statutes, regulations, codes, etc., including but not limited to CAL/OSHA requirements as set forth in the California Administrative Code, Title 8, Chapter 4. Submission of a response constitutes the representation of the Eligible Contractor that all items meet or exceed all such applicable laws, statutes, codes, etc., and that the determination that any item does not do so shall be grounds, at the option of County, to terminate or rescind the Work Order, purchase or lease, and entitle County to any damages suffered by reason thereof.

Prevailing Wage

Eligible Contractors are reminded of the requirement to comply with all provisions of the Labor Code of the State of California. The State Department of Industrial Relations makes prevailing wage determinations of straight time and overtime for crafts required to execute the Work Order that may be awarded as the result of this WOS. California's Department of Industrial Relations web site at <http://www.dir.ca.gov/DLSR/PWD> provides current information on all covered crafts.

Subcontracting (TESMA Paragraph 8.43)

Eligible Contractor must provide below names of proposed Subcontractor(s) and the type of services, i.e., cabling, project management, etc., that the subcontractor shall perform under the resulting Work Order:

**Name of Subcontractor(s):**

**Type of Services:**

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Eligible Contractors must submit as part of their bid response, a complete subcontract request/approval package for each proposed Subcontractor. In order to help expedite the award of Work Orders, Eligible Contractors may submit information on individual proposed Subcontractors in advance of bidding on a specific Work Order Solicitation. To submit information in advance, TESMA Eligible Contractors should obtain RFSQ Appendix I, Sample Subcontracting Agreement. Appendix I should be signed and submitted to indicate agreement by the Subcontractor.

Please note that submission of documentation for a proposed Subcontractor does not constitute consent by County to use the Subcontractor, and that consent to use a Subcontractor for a portion of one Work Order does not constitute consent for a different portion of that Work Order or for another Work Order.

A new subcontract need not be executed for each WOS submission, but the period of time necessary for doing the work for each WOS must be within the time period of the subcontract, and the desired applicable subcontract and all its related documentation must be valid and resubmitted each time.

**Insurance**

Contractor must indemnify County and provide all certificates or other evidence of insurance as required by Section 8.24, General Insurance Requirements and Section 8.25, Insurance Coverage Requirements of TESMA.

**Declaration of Non-Collusion**

Eligible Contractor declares under penalty of perjury that this response is genuine and not a sham or collusion, or made in the interest or on the behalf of any person, firm, corporation not hereon named; that the Eligible Contractor has not directly or indirectly induced or solicited any other Eligible Contractor to put up a sham response, or any other person, firm or corporation to refrain from responding, and that the Eligible Contractor has not in any manner sought by collusion to secure itself any advantage over other Eligible Contractors. Your signature to this solicitation shall be considered certification of full compliance with this condition.

**Invoice and Payment**

A copy of the invoice shall be sent to County Project Manager for approval of payment in accordance with the terms and conditions of TESMA. The purpose of asking for a COPY of the invoice is to reconcile the invoiced amount to the project total shown on the "As Built" Schedule of Materials and Services. Invoices should not be sent to County's "BILL TO" address until County Project Manager indicates to the Contractor that all deliverables have been received and the "As Built" total agrees with the invoice amount. The original invoice should go to the Accounts Payable office shown on the Work Order under "BILL TO".

Upon receipt of copy of the invoice and acceptance by County Project Manager, County will process the payment in an expedient manner.

Invoices for partial or progress payment may be considered by County under the following circumstances:

- ONLY when the project is a cash purchase (not a lease purchase with Contractor or third party financing).
- When there is a lengthy delay and partial or progress payment does not exceed the cost of materials and services delivered up to the time the invoice for partial or progress payment is generated.
- When the Contractor has provided all the deliverables required upon which the partial or progress payment is based.
- Following the submission and approval of a Change Order reflecting addition and deletion of all equipment and services received by County to date. Where costs have not been itemized or cannot be separated, they cannot be considered in calculation of the partial or progress payment.

**California Sales Tax Registration**

Eligible Contractors are required to furnish the serial number of their California Retailer Permit or Retailer's Certificate of Registration-Use Tax. Failure to furnish the serial number will prevent County of Los Angeles from paying sales/use tax to your company. Do not include sales/use tax on any invoice if you do not furnish one of these numbers.

**State & Federal Identification Numbers****California Retailer Permit: \_\_\_\_\_****CA Contractor License: \_\_\_\_\_****Retailer's Certificate of Registration-Use Tax: \_\_\_\_\_****Federal EIN: \_\_\_\_\_**

Eligible Contractor's Authorized Signature

**Your signature hereon certifies that quoted prices are complete, correct, and firm to final project acceptance by County if County issues a Work Order to your firm within 90 days following selection. Digital graphic signature is acceptable. If unable to furnish a digital graphic signature, please fax your executed signature page to the fax number of the analyst on Page 1. Faxed signature pages must arrive by closing date and time listed in this WOS.**

We (I) hereby agree to furnish the materials and/or services quoted herein at the prices and terms stated, subject to the instructions and conditions stated herein and in accordance with TESMA.

Firm Name: \_\_\_\_\_ City: \_\_\_\_\_  
Street: \_\_\_\_\_ ZIP: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Official's Name: \_\_\_\_\_ Official's Title: \_\_\_\_\_

Signature: \_\_\_\_\_

**Selection of the Winning Eligible Contractor**

Selection of the winning Eligible Contractor for this WOS shall be based on the lowest priced bid of a qualified responsible and responsive Contractor.

**Bid Evaluation Preferences:**

Should one or more of the Qualified Contractors request and be granted the Local Small Business Enterprise (SBE) Preference and/or Social Enterprise (SE) Preference and/or Disabled Veteran Business Enterprise (DVBE) Preference the cost component will be determined as follows:

**Local SBE Preference:** Fifteen percent (15%) of the lowest qualified cost/price proposed will be calculated, which shall not exceed \$150,000, and that amount will be deducted from the Cost/price submitted by all Local SBE Proposers who requested and were granted the Local SBE Preference.

**SE Preference:** Fifteen percent (15%) of the lowest cost/price proposed will be calculated and that amount will be deducted from the cost/price submitted by all Qualified Contractors who requested and were granted the Social Enterprise Preference.

**DVBE Preference:** Fifteen percent (15%) of the lowest qualified cost/price proposed will be calculated, which shall not exceed \$150,000, and that amount will be deducted from the cost/price submitted by all DVBE who requested and were granted the DVBE Preference.

Submit the following form along with your LSBE, SE or DVBE certification letter in order to be granted the preference rate

**REQUEST FOR PREFERENCE CONSIDERATION**

**INSTRUCTIONS:** Businesses requesting preference consideration must complete and return this form for proper consideration of the bid. Businesses may request consideration for one or more preference programs. Check all certifications that apply.\*

**I MEET ALL OF THE REQUIREMENTS AND REQUEST THIS BID BE CONSIDERED FOR THE PREFERENCE PROGRAM(S) SELECTED BELOW. A COPY OF THE CERTIFICATION LETTER ISSUED BY THE DEPARTMENT OF CONSUMER AND BUSINESS AFFAIRS (DCBA) IS ATTACHED.**

☐ **Request for Local Small Business Enterprise (LSBE) Program Preference**

- ☐ Certified by the State of California as a small business and has had its principal place of business located in Los Angeles County for at least one (1) year; **or**
- ☐ Certified as a LSBE with other certifying agencies under DCBA's inclusion policy that has its principal place of business located in Los Angeles County and has revenues and employee sizes that meet the State's Department of General Services requirements; **and**
- ☐ Certified as a LSBE by the DCBA.

☐ **Request for Social Enterprise (SE) Program Preference**

- ☐ A business that has been in operation for at least one year providing transitional or permanent employment to a Transitional Workforce or providing social, environmental and/or human justice services; **and**
- ☐ Certified as a SE business by the DCBA.

☐ **Request for Disabled Veterans Business Enterprise (DVBE) Program Preference**

- ☐ Certified by the State of California, **or**
- ☐ Certified by U.S. Department of Veterans Affairs as a DVBE; **or**
- ☐ Certified as a DVBE with other certifying agencies under DCBA's inclusion policy that meets the criteria set forth by: the State of California as a DVBE or is verified as a service-disabled veteran-owned small business by the Veterans Administration: **and**
- ☐ Certified as a DVBE by the DCBA.

**\*BUSINESS UNDERSTANDS THAT ONLY ONE OF THE ABOVE PREFERENCES WILL APPLY. IN NO INSTANCE SHALL ANY OF THE ABOVE LISTED PREFERENCE PROGRAMS PRICE OR SCORING PREFERENCE BE COMBINED WITH ANY OTHER COUNTY PROGRAM TO EXCEED FIFTEEN PERCENT (15%) IN RESPONSE TO ANY COUNTY SOLICITATION.**

**DECLARATION: I DECLARE UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE ABOVE INFORMATION IS TRUE AND ACCURATE.**

- ☐ **DCBA certification is attached.**

Name of Firm		County Webven No.	
Print Name:		Title:	
Signature:		Date:	
<b>Reviewer's Signature</b>	<b>Approved</b>	<b>Disapproved</b>	<b>Date</b>

**County of Los Angeles**  
**STATEMENT OF WORK**  
**TESMA SERVICE CATEGORY (A)**

Project Name: **BOS Media Wall Implementation**  
Project Manager: **Lorenzo Villanueva**

Project No: **TA568**  
Lease Schedule: **N/A**

## **1.0 GENERAL OVERVIEW**

The County of Los Angeles Board of Supervisors is remodeling and reconfiguring the Kenneth Hall of Administration (HOA) Board Hearing Room by way of a Boardroom Technology Refresh project which will begin with a series of enhancements that will improve accessibility to Board meeting content and augment the overall administrative support process. The initial phase of this effort will include a video wall with full screen displays and the ability to deliver high definition content including live television and multimedia presentations. Contractor shall furnish and implement a turnkey Media Wall solution. This solution will include all integrated displays, Video processor, Complete hardware and software design, Infrastructure build and installation of a fully functional Media Wall Solution.

## **2.0 SCHEDULE OF EVENTS**

Following the Work Order execution, County Project Manager shall contact the Contractor to arrange a "Kick-off" meeting. Attachment A shall be reviewed and signed by both County and Contractor Project Managers. ISD and Contractor Project Managers will review the project management processes expected from both the ISD Project Manager and the Contractor's Project Manager. If applicable, a site walk will be scheduled for the Contractor to review the site, make observations and measurements with respect to cable routes and distances and obtain any information needed to prepare a Project Implementation Plan (PIP). Refer to Paragraph 5.0, General Conditions and Requirements, for the contents of the PIP. If any materials or services need to be changed, added, or deleted in order to successfully complete the project based upon the Contractor's assessment, a Change Order shall be submitted with the PIP.

The PIP shall be submitted, via email, to the ISD Project Manager within five (5) working days from the "Kick-off" meeting. Upon review and acceptance of the PIP, the ISD Project Manager will sign any Change Orders, if applicable, and notify the Contractor to order materials and begin project implementation.

### **Schedule:**

#### **Solicitation Schedule:**

<b>No.</b>	<b>Task</b>	<b><u>Due Date</u></b>
1.	Release of WOS/SOW	02/07/2019
2.	Bid Conference	02/14/2019
3.	Contractor Questions due by 5:00 p.m. PT	02/19/2019
4.	Release of Q&A Addendum to Contractors	02/20/2019
5.	Bid Submission to County Contracting Division	02/26/2019
6.	Notification of Contractor	03/04/2019
7.	Work Order Execution	03/11/2019



**Projected Project Schedule:**

<b>No.</b>	<b>Task</b>	<b><u>Due Date</u></b>
1.	Kick Off Meeting	03/13/2019
2.	Site Walk	03/13/2019
3.	Contractor Ordering of Equipment/Materials	03/13/2019
4.	Equipment Receipt & Staging	03/27/2019
5.	Demo Projector and wall	03/27/2019
6.	Cabling and wireway installation	04/15/2019
7.	Assembly and installation of components	04/30/2019
8.	Integration and testing	05/15/2019
9.	Review of Closure, Deliverables and as-builds	05/25/2019
10.	Project Accepted and Closed	06/15/2019

The above schedule represents the best estimate of the timetable for this project. The above dates are subject to change due to changes in construction programs, facility preparation, and other considerations.

**3.0 INCORPORATION BY REFERENCE**

- 3.1 Contractors must comply with all terms, conditions and technical specifications of the TESMA.
- 3.2 Contractors are required to understand and comply with the following standards, which are incorporated herein by reference:
- Los Angeles County Commercial Building Telecommunications Wiring Standard 902
  - Copper Cable Inspection, Test and Acceptance Requirements for Premises Structured Cabling
  - Fiber Cable Inspection, Test and Acceptance Requirements for Premises Structured Cabling
  - ANSI/TIA/EIA 568 - Commercial Building Telecommunications Cabling Standard
  - ANSI/TIA/EIA 569 - Commercial Building Standard to Telecommunications Pathways and Spaces
  - ANSI/TIA/EIA 607 – Commercial Building Grounding and Bonding Requirements for Telecommunications
  - National Electric Code (NEC) Articles 250 – 800 Communications Cabling
  - ANSI/TIA/EIA-455/526 Fiber Optic Test Procedures
  - NFPA – National Fire Protection Association, Articles 70 & 101
  - Local Building Codes



**4.0 SCOPE**

Furnish and install a complete and functional system consisting of the following components as indicated (checked) below:

<b>Req'd</b>	<b>System Component</b>	<b>Specifications</b>
<input type="checkbox"/>	<u>Special Requirements</u>	<u>Para. 6.1</u>
<input checked="" type="checkbox"/>	<u>Distribution (Horizontal) Cabling</u>	<u>Para. 6.2</u>
	<input checked="" type="checkbox"/> Station Cabling (Voice/Data)	<u>Para. 6.2.1</u>
	<input checked="" type="checkbox"/> Terminating Blocks/Patch Panels	<u>Para. 6.2.2</u>
	<input checked="" type="checkbox"/> Patch Cords	<u>Para. 6.2.3</u>
	<input type="checkbox"/> Workstation Outlets	<u>Para. 6.2.4</u>
	<input checked="" type="checkbox"/> Equipment Racks	<u>Para. 6.2.5</u>
	<input type="checkbox"/> Labeling	<u>Para. 6.2.6</u>
<input type="checkbox"/>	<u>Distribution (Backbone) Cabling</u>	<u>Para. 6.3</u>
	<input type="checkbox"/> Copper Cabling	<u>Para. 6.3.1</u>
	<input type="checkbox"/> Fiber Optic Cabling	<u>Para. 6.3.2</u>
	<input checked="" type="checkbox"/> Fire Stopping	<u>Para. 6.3.3</u>
<input checked="" type="checkbox"/>	<u>Cable Testing</u>	<u>Para. 6.4</u>
<input type="checkbox"/>	<u>Voice System (Legacy)</u>	<u>Para. 6.5</u>
	<input type="checkbox"/> EKTS (Norstar)	
	<input type="checkbox"/> Private Branch Exchange (PBX)	
<input type="checkbox"/>	<u>Cisco Converged IP Network Solutions</u>	<u>Para. 6.6</u>
	<input type="checkbox"/> Emergency Phones	<u>Para. 6.6.1</u>
	<input type="checkbox"/> LAN, UPS and Wireless Access Points	<u>Para. 6.6.2</u>
	<input type="checkbox"/> IPCC - Enterprise	
	<input type="checkbox"/> IP – IVR	
<input type="checkbox"/>	<u>Computer Telephony Integration (CTI)</u>	<u>Para. 6.7</u>
<input checked="" type="checkbox"/>	<u>Building Systems</u>	<u>Para. 6.8</u>
	<input type="checkbox"/> Public Address	<u>Para. 6.8.1</u>
	<input type="checkbox"/> Intrusion Detection and Alarm	<u>Para. 6.8.2</u>
	<input type="checkbox"/> Panic Alarm	<u>Para. 6.8.3</u>
	<input type="checkbox"/> Access Control System	<u>Para. 6.8.4</u>
	<input type="checkbox"/> CCTV	<u>Para. 6.8.5</u>
	<input type="checkbox"/> MATV	<u>Para. 6.8.6</u>
	<input type="checkbox"/> Video Teleconferencing	<u>Para. 6.8.7</u>
	<input checked="" type="checkbox"/> LCD Flat Panel TV	<u>Para. 6.6.3</u>

**5.0 GENERAL CONDITIONS & REQUIREMENTS**

- 5.1 All material, parts, and equipment to be furnished under this WOS shall be new, high grade and free from defects and imperfections. Workmanship shall be in accordance with the best standard practices.
- 5.2 Contractor shall furnish and install a complete and operational turn key system. Attachment A of the WOS is a listing of items that are considered a minimum requirement to price. Any item that is not specifically identified in Attachment A is left to the discretion of each bidder. It is the requirement of each vendor to meet the service requirements of the WOS. However, each vendor may itemize these service components in Attachment A as they see necessary. If it is not itemized, it is deemed included in the total bid price.
- 5.3 All work performed shall be done in accordance with the highest standards among the latest applicable edition of National Electrical Code (NEC), Electronics Industry Association (EIA) Standards, Telecommunications Industry Association (TIA) Standards, and regulations, laws,

safety orders, ordinances or codes of State and local authority having jurisdiction. Wherever requirements in the specifications exceed those of the ordinances or codes, specifications shall govern. Violations of such statutes, ordinances, and regulations shall be corrected at no expense to County.

- 5.4 Contractor shall be responsible for obtaining, at its own expense, all construction permits and licenses required by local authority having jurisdiction, including for any subcontracting firm engaged in construction/installation for this project.
- 5.5 **Contractor shall be responsible for obtaining a “low voltage” installation permit** from the local government agency before starting installation. Contractor shall also be responsible for obtaining Infection control permits, Office of Statewide Health Planning and Development permits and undergoing health screening procedures. Contractor shall follow all Infection control procedures.
- 5.6 Contractor shall be responsible for consulting with the building inspector to determine whether there are special local requirements for strapping in the wiring pathways.
- 5.7 Contractor shall be responsible for repairing, replacing, or otherwise restoring to original condition all damage to the premises caused by Contractor personnel, its subcontractors, and/or agents.
- 5.8 VENDOR shall furnish and install a complete and operational system. Prior to ISD acceptance and transfer of the completed Video Wall Presentation System, VENDOR shall demonstrate that the entire system is operational including all individual devices and specified control functions to the satisfaction of the ISD project manager or designee.
- 5.9 The VENDOR shall clean the Board Hearing Room /AV Media Control Room work sites and dispose all trash in appropriate trash disposal area. The VENDOR shall work with HOA staff to identify proper trash disposal area. The day prior to a Tuesday Board Meeting, VENDOR shall stop work and ensure all work areas within the Board Hearing Room are free of debris, and that all materials are properly stowed away until work resumes the day after the Board meeting.
- 5.10 During the Design Phase the VENDOR shall propose an Installation Plan and Schedule to the ISD project manager or designee. It is necessary for the VENDOR to propose a methodology for installation that allows for no disruption and minimal impact, to the normal operations of the Board Room meetings. This may include the VENDOR to work extended shifts including evenings and weekends to meet specified installation timelines.
- 5.11 The staff assigned to the project by the Contractor, including subcontractor's staff, shall have the required training, experience, and certification by the manufacturer to perform the installation work required by this SOW.
- 5.12 Contractor's staff shall have demonstrated experience and skills in the installation, configuration, and support of the size of installation and type of equipment that is being furnished for this project.
- 5.13 Contractor shall furnish the necessary resources to meet the installation schedule as outlined in this document or later modified by the ISD Project Manager.
- 5.14 Prior to installation, the ISD Project Manager shall approve in writing any change order or modification to the approved drawings and bid materials and services. Change orders shall be documented and approved on the same Schedule of Materials & Services as the original bid.
- 5.15 The Project Implementation Plan (PIP) shall consist of a 3-ring loose leaf binder to include the following:
- A copy of the bid response submitted by the Contractor.
  - A copy of Attachment A with appropriate signatures, that includes manufacturer, item description, manufacturer's part number, quantity, unit cost of material, unit cost of labor for each deliverable item, and price extensions Attachment A (upper left corner area).
  - Detailed work plan outlining the tasks, milestones, and deliverables to be achieved along with the estimated completion date for each.
  - Technical data for all equipment the Contractor proposes to install.

- Single line system diagram(s) identifying and showing interrelationships between equipment items and how they are interconnected.
- Shop drawings showing details of fabricated items, rack elevation drawings, and schematics of custom designed items.

Statement describing exceptions being taken, if any, to the SOW specifications wherein the submitted equipment or design varies from that originally specified. If the 5.16 Contractor shall be responsible for meeting the general contractor's published schedule and critical path requirements. Contractor and Subcontractor shall attend the construction meeting and provide inputs for any construction work relates to the work of low voltage systems. The Contractor shall be responsible for coordinating with the general contractor and any subcontractors required ensuring successful completion of the project.

- 5.17 Contractor's staff shall display their company badge or identification at all times while in the building.
- 5.18 All physical equipment including switches and UPS hardware will be operationally tested and burned-in for five days.

## 6.0 TASKS/DELIVERABLES

### 6.1 **SPECIAL REQUIREMENTS**

- 6.1.1 Contractor shall furnish and implement a turnkey Media Wall solution for the Board of Supervisors Hearing Room situated in the Kenneth Hahn Hall of Administration (HOA) located at 500 W. Temple Street, Los Angeles, CA 90012.
- 6.1.2 Contractor will provide system design and engineering functions in order to implement a fully functional media wall solution that meets the outlined requirements and specifications.
- 6.1.3 Contractor will provide project management and coordination of the implementation and all aspects of the installation of the media wall.
- 6.1.4 Contractor shall develop a detailed Project Plan, indicating levels of effort and schedules required to effectively accomplish all requirement and duties. Contractor shall be responsible for providing weekly status reports to the Project Manager indicating the progress of Tasks and specifically address any elements of the Project Plan that differs from the original schedule.
- 6.1.5 Contractor will provide CAD drawings - design and build documentation in hard and electronic copies.
- 6.1.6 Contractor will perform system programming, in-house system configuration, setup and testing. Testing and validation will be developed and confirmed with LA County representatives for final sign-off of project.
- 6.1.7 Contractor will provide training and operational instructions for internal staff on use, operation and support of media wall and related systems.
- 6.1.8 Media wall systems will include displays, hardware, wall processor, software, mounting, cabling, power supplies and all components needed to provide a complete solution.

- 6.1.9 Media wall solution will contain integrated software that provides the setup, configuration and monitoring (health-status) of the media wall. Additionally, software will provide a user interface (GUI) with capabilities to manage and control the display content via multiple users and access levels; configurable by the use of templates.
- 6.1.10 Media Wall system will include redundancy options for supporting failures, including n+1 components; such as power supplies (which will be hot-swap in design) and replaceable.
- 6.1.11 Contractor will setup pre-fabricated media wall structure with supports that will support media wall displays.
- 6.1.12 Contractor will attach mounts and mount displays, which will have fan-less operation, with remote power supplies located within 200 feet and connections to remote processor to be located remotely within 200 feet.
- 6.1.13 Contractor shall run necessary cabling to those remote locations for the connection of the remote media wall processor and power supply hardware. Power will be connected to an existing UPS system feeding the designated racks.
- 6.1.14 Contractor shall locate remote power supplies and media wall processor will be in the AV Media Control Room (HOA 4th Floor), where the contractor will locate and rack those systems.
- 6.1.15 Contractor will provide warranty and support services as outlined in the specifications in order to provide on-going support for the media wall. Contractor will provide an allocation (10%) of spare displays and cabinets in order to facilitate the needed replacement for near and long-term failures.
- 6.1.16 Contractor will be a local distance - within one hour driving time to provide the necessary service and support capability; Contractor will be an authorized dealer of manufacturer for both sales and installation of product; Contractor will be an authorized direct purchaser of product from the manufacturer and will be registered with manufacturer for the sale and purchase of product.
- 6.1.17 Contractor will meet outlined specifications for hardware and software systems and all components. No product or specification equivalents will be accepted or allowed. Requirements must be met and product specifications must match the bid specifications exactly, no exceptions.
- 6.1.18 Contractor is responsible for all acts and services required to provide the ISD with a fully functional System in accordance with the Manufacturer's Specifications, whether or not the acts or services required to do so are specifically identified in this Statement of Work, and unless otherwise expressly stated, all work described in this Statement of Work shall be performed by Vendor.
- 6.1.19 Contractor shall assess the County of Los Angeles Kenneth Hahn Hall of Administration (500 West Temple Street LA California 90012 Board Hearing Room - 381B) to acclimate themselves with physical installation site. Contractor to confirm measurements and ensure the feasibility of the proposed design concept it relates to site requirements (e.g., physical dimension, power, AV inputs, etc.). Contractor shall document any physical site augmentation needs and/or proposed retrofit specifications. Whenever applicable, Contractor shall install new ceiling hangers for overhead cabling in compliance with the NEC and local codes. Bundled cables above the ceiling shall be fastened with plenum-rated tie-wraps/fasteners at 4-foot intervals. Cable tie-

wraps/fasteners may not be attached to existing ceiling tile supports, nor may cables lie directly on ceiling tiles. If any impassable obstructions are encountered above ceilings, surface raceway may be used around the obstruction, with the prior written approval of the ISD Project Manager.

- 6.1.20 All cables that are exposed in the ceiling area, i.e., not installed in a conduit, shall be rated Communications-Plenum (CMP) regardless of the type of air return system in the building. Plenum cable shall be listed as having passed the flame and smoke requirements of National Fire Protection Agency (NFPA) 70A/262, also known as Underwriters Laboratories (UL) 444/910 and be insulated 100% with Fluorinated Ethylene Propylene/Teflon® (FEP) rated and labeled CMP compliant.
- 6.1.21 Contractor shall ensure that all exposed cables shall have the proper attachments such as J-hook, trapeze system, cable tray, and hangers as required per EIA/TIA 569 Standard. Ceiling cable support wires shall be attached to the building structure and distinguished by color, tags, or other means, from the ceiling support wires. At no point shall cable(s) rest on acoustic ceiling grids, panels, or on existing support wires. NEC, Article 800, Section 300, specifies the installation of cables in a ceiling.
- 6.1.22 There will be no alternates or substitutes for the Video Wall Infrastructure hardware specified unless approved by the ISD project manager.
- 6.1.23 Contractor may be asked to initially install equipment and then wait until the users have migrated from the existing network location to the network installed by the Contractor. Following the user migration and/or move, the Contractor shall be asked to remove and dispose of any existing equipment that would be given credit to the County as trade-in program from Cisco equipment.
- 6.1.24 Attachment A contains a listing of equipment and services with quantities of each component. These should be considered a minimum requirement. Prices are to be provided for all items listed in Attachment A, even when the quantity is shown as zero (0). The Contractor will honor quoted prices for the duration of the project.
- 6.1.9 Contractor must designate at least one employee who will perform the duties that are associated with distributed network management and can be designated as a focal point for Network Management Systems administration, best practices, policies, procedures, etc. This individual must have responsibility and authority for network management coordination for the duration of project as an intermediary between the Contractor and the County.
- 6.1.10 Vendor must complete FULL site inspection of existing wall to identify all points of contact relating to the support of the new Media Wall frame to ensure there will be no structural issues or concerns prior to any bid submissions.

## 6.2 **DISTRIBUTION (HORIZONTAL)**

REQUIRED

### 6.2.1 **STATION CABLING (VOICE/DATA)**

REQUIRED

- 6.2.1.1 Contractor shall furnish and install station cabling for various locations as per Attachment A and plans and diagrams will be provided at the Eligible Contractor's Conference. Eligible Contractors shall be responsible for determining the actual distances of cabling runs.
- 6.2.1.2 The station cabling shall consist of a complete and functional Category 6 system with three (3) Category 6 cables per location as indicated for PC, two (2) Category 6 cables per location as indicated for printer, one (1) Category 6 cables per location as indicated for wall mounted phone and fax jacks. The contractor shall furnish wire minders, equipment racks, cable trays, and ancillary equipment to provide a completely operational system in accordance with TIA/EIA, NEC, IEEE, and County of Los Angeles best practices and standards.
- 6.2.1.3 Station cable shall be Premium Category 6, 24 AWG, 4-pair unshielded twisted pair, plenum & UL rated (CMP), with blue outer jacket. Cable shall be tested per TIA/EIA 568A standards, TSB 67

& 95 Channel Enhanced specifications @ 100 MHz Reference cable is manufactured by General Cable GenSPEED 5500 or approved equivalent as per Attachment A.

- 6.2.1.4 Miscellaneous station cabling for pay phones, elevator cars, intrusion alarm, fire alarm, card access system and MB lines cable shall be one (1) Category 6, 24 AWG, 4-pair unshielded twisted pair, plenum & UL rated (CMP), with white outer jacket. General Cable or an approved equivalent manufactures reference cable as approved by ISD Project Manager. See attachment A for quantities of locations.
- 6.2.1.5 Pathways shall not be filled with cables greater than the NEC and ANSI/EIA/TIA 569A maximum fill requirement without the approval of the ISD Project Manager. All cable and fiber cable pathways shall be determined by the Contractor and identified prior to installation.
- 6.2.1.6 Cable shall be installed in continuous lengths (no splices allowed) from origin (jack) to patch panel at point of connection to equipment, using the shortest route possible. The maximum horizontal cable length shall not exceed 295 feet.
- 6.2.1.7 If a J-hook or trapeze system is used to support cable bundles, cables shall be supported at a space interval that is allowable by code. At no point shall cable(s) rest on acoustic ceiling grids, panels, lighting support wires, or come in contact with the fire protection sprinkler system.
- 6.2.1.8 Cables shall be bundled and grouped up to 24 and per TIA/EIA standards. Exceeding the limits may cause deformation of the bottom cables within the bundle, negatively affecting desired cable performance characteristics. The Contractor shall be required to replace, at no additional cost to the County, cabling or other installed systems in situations identified by the ISD Project Manager as not meeting installation or performance criteria.
- 6.2.1.9 Contractor shall be responsible to coordinate with the modular furniture manufacturer (Hayworth, Premises model, Millworks, etc.) or supplier as to the proper installation and placement of cables in the furniture. Floor plans will be made available to the Contractor at the Kick-off meeting.
- 6.2.1.10 Contractor shall provide and Install Panduit Corrugated Loom Tubing (part # CLT150F-X20) as per Attachment A for the installation of Category 6 wires and Panic Alarm wires from the wall outlets to the modular furniture. See provided floor plans for locations.
- 6.2.1.11 Contractor shall furnish and install all cross connects for telephones, trunks, and private lines and other special circuits.
- 6.2.1.12 SPECIAL PRICING REQUIREMENT AFFECTING CHANGE ORDER ADDS/DELETES:**
- 6.2.1.13 Contractor shall furnish any additional material required by changes to the scope of the work at the same prices quoted in the original bid schedule for the life of the project.
- 6.2.1.14 Contractor shall quote, in its response, a composite unit price (complete labor and materials) for the following:
- Installation of a typical station "wiring run" from MDF or IDF to desktop, including cost of terminating three (3) Category 6 cables onto the patch panels in the TR.
  - Installation of a typical station "wiring run" from MDF or IDF to desktop, including cost of terminating two (2) Category 6 cable onto the patch panels in the TR.
  - Installation of a typical station "wiring run" from MDF or IDF to desktop, including cost of terminating one (1) Category 6 cable onto the patch panels in the TR.

**6.2.2 TERMINATING BLOCKS/PATCH PANELS REQUIRED**

- 6.2.2.1 Contractor shall furnish and install patch panels to the quantities shown in Attachment A.
- 6.2.2.2 Pay phone cables and MB line phone cables shall be terminated on 50-pair, 66M1-50 mini blocks with stand-off brackets as per Attachment A. They shall be neatly dressed in metal "D" rings with Velcro ties.



- 6.2.2.3 Contractor shall furnish and install 48-port and 24-port patch panel by Panduit Mini-Com (CP48BL, CP24BL) equipped with mini-modular jacks as per Attachment A.
- 6.2.2.4 Minimum of one rack unit space shall be left between each patch panel with a blank or horizontal cable management panel installed.
- 6.2.2.5 Contractor shall furnish and install vertical wire organizers manufactured by Panduit (WMPVHC45E), horizontal wire manager (WMPH2E) and horizontal rack filler by Panduit (DPFP1) as per Attachment A
- 6.2.2.6 Cables shall be neatly bundled and dressed to their respective panels and blocks. Velcro cable management straps shall be used in place of tie-wraps.
- 6.2.2.7 Whenever possible, terminating blocks shall be oriented so that backbone blocks are located on the left and station blocks are located on the right of the termination field when facing the plywood backboard.

### **6.2.3 PATCH CORDS** **REQUIRED**

- 6.2.3.1 Contractor shall furnish patch cords as per Attachment A.
- 6.2.3.2 Patch cords shall be Enhanced Category 6, 24 AWG stranded, UL rated, 4-pair assemblies with RJ45 plugs on each end, straight through (no pair reversals), Panduit snag less Powersum+Enhanced Category-6, UTPSP, bootless patch cords or approved equivalent. Following user migration, Contractor shall dress all patch cables to A jacks on P/P to LAN switches and equipment power cords.
- 6.2.3.3 All copper patch cords shall be machine generated labeled with white Panduit "Turn Tell" or equivalent labels at each end of the cable identifying the data jack on the switch side and the switch port on the patch panel side respectively. Panduit "Turn Tell" or equivalent labels shall be sized according to size and type of cable used, shall allow labels to rotate for visibility from any angle, and allow repositioning on the wire /cable to align legends.  
  
Example: Copper patch cord labeled on each end: Switch Port Number and Patch Panel Port Number  
  
Switch Side: D2033      Patch Panel Side: Gi1/0/3

### **6.2.4 WORKSTATION OUTLETS** **NOT REQUIRED**

### **6.2.5 EQUIPMENT RACKS/MOUNTINGS** **REQUIRED**

- 6.2.5.1 The Contractor shall furnish and install relay racks, relay rack accessories and cable trays as per floor plans and Attachment A.
- 6.2.5.2 Structural cable tray, relay racks, cabinets, systems, attachments, and earthquake bracing shall comply with Zone 4, NEMA, NEC, and TIA/EIA-569 standards.
- 6.2.5.3 All structural ironwork shall be UL-certified, Black-plated providing the best bonding for static and grounding. Painted structural ironwork is not allowed.
- 6.2.5.4 Cable tray shall be of the tubular type construction, Cooper B-Line Part # SB-17-12-YZN or equivalent as per Attachment A. The tray shall be installed with the rungs on the topside of the tray. All attachments to drywall shall be on 3/4" plywood.
- 6.2.5.5 Cable tray shall be 7' 3" from the finished floor. This will require the installation of a 3" spacer manufactured by B-Line Systems Inc., P/N: STD108DET4 as per Attachment A. The 7' 3" allows for the cable tray to be positioned over the 7' doorway.
- 6.2.5.6 Floor mounting hardware shall be a 3/8" bolt, lock washer, flat washer, with anchor in the floor, quantity as required. Heavier power equipment will require a larger bolt to meet Zone 4 standards.



- 6.2.5.7 All cabinets 7 feet or higher shall have a seismic top attachment and be anchored to the floor. Shorter cabinets must be anchored to the floor.
- 6.2.5.8 All exposed cut and sharp edges shall be filed to a safe finish. Cable tray runway ends shall be capped with a black rubber cap.
- 6.2.5.9 Relay racks shall be of high strength aluminum construction with universal 5/8"-5/8"-1/2" tapped mounting hole #12-24 thread pattern on both front and rear. Relay racks Two and Four Post shall be designed and seismically built to the EIA-310C Standard. **Four** posts reference Chatsworth Part # 50120-703 and **Two** post reference 15053-703 45 RMU colored black or approved equivalent as per Attachment A.
- 6.2.5.10 Side by side relay racks shall be bolted together using Panduit Vertical Wire Management Brackets.
- 6.2.5.11 All equipment racks shall be augmented with horizontal and vertical management hardware, both front and rear, to properly dress cables and patch cords. Contractor shall furnish wire management hardware using Panduit part numbers WMPH2E (horizontal) and WMPVHC45E (vertical) or approved equivalent as per Attachment A.
- 6.2.5.12 Where required in the MCR or other communication closets, Contractor shall provide Plastic Water Fall Spillways, manufactured by Bejed Part # BJ-2049, for all conduits.
- 6.2.6 LABELING NOT REQUIRED**
- 6.3 DISTRIBUTION (BACKBONE) CABLING NOT REQUIRED**
- 6.3.1 COPPER CABLING NOT REQUIRED**
- 6.3.2 FIBER OPTIC CABLING NOT REQUIRED**
- 6.3.3 FIRE STOPPING REQUIRED**
- 6.3.3.1 All penetrations in fire-rated building structures/walls/floors/ceilings shall be fire-stopped per NFPA, American Society for Testing and Materials, and NEC specifications with a UL rating. This requirement applies to through penetrations (complete penetration) and membrane penetrations (through one side of a hollow fire rated structure). Any penetration item, i.e., riser slots and sleeves, cables, conduit, cable tray, and raceways, shall be properly fire stopped.
- 6.3.3.2 All fire stop systems with 2-hour (minimum) rating shall be installed in accordance with the manufacturer recommendations and shall be completely installed and available for inspection by the inspection authorities prior to cable system acceptance.
- 6.3.3.3 Durable and reenter able fire putty shall be used wherever possible.
- 6.3.3.4 All flush wall outlets on rated sound walls and firewalls shall have a fire/putty blanket on the backside of the outlet and meet fire code standards. Note that this is for new and newly completed construction. New outlets installed on these walls shall be surface mounted with the proper fire stopping.
- 6.3.3.5 All firewall penetrations shall have a metallic conduit and fire stopping installed. The hole around the conduit shall be fire-stopped and watertight.
- 6.3.3.6 Innerduct shall not penetrate a fire dam; it must be cut six inches (6") below and six inches (6") above the fire dam if necessary.

<b>6.4</b>	<b>CABLE TESTING</b>	<b>REQUIRED</b>
6.4.1	<p>All testing shall be per “Los Angeles County Commercial Building Telecommunications Wiring Standard 902” and companion documents for fiber and copper cable testing. The ISD Project Manager shall certify prior to testing the following:</p> <ul style="list-style-type: none"> <li>• Test meter(s) have been calibrated to TIA/EIA Standard within the last 12 months. Each meter shall have a Certificate of Compliance, showing meter serial number and be dated.</li> <li>• Test meter(s) shall be fully charged.</li> <li>• Test configuration set to the County standards.</li> <li>• Manufacturer’s warranty certification (if applicable) requirements shall be reviewed to ensure that all warranty requirements are met.</li> <li>• Copper testing shall be in accordance with “Copper Cable Inspection, Test and Acceptance Requirements for Premises Structured Cabling” (Los Angeles County Commercial Building Telecommunications Wiring Standard 902).</li> </ul>	
6.4.2	Contractor shall test, certify, and provide documentation on data cables in accordance with TIA/EIA-568A-5 Category 6 Basic Link test Standards using a suitable Category 6 tester. Documentation of end-to-end test results on each data run (identified by jack number, test configuration and dated) shall be provided to the ISD Project Manager.	
<b>6.5</b>	<b>PRIVATE BRANCH EXCHANGE( PBX)</b>	<b>NOT REQUIRED</b>
<b>6.6.1</b>	<b>CISCO CONVERGED IP NETWORK SOLUTIONS</b>	<b>NOT REQUIRED</b>
<b>6.6.1</b>	<b>IP TELEPHONY</b>	<b>NOT REQUIRED</b>
6.6.1.1.	<b>EMERGENCY PHONES</b>	<b>NOT REQUIRED</b>
6.6.1.2	Contractor must adhere to the County’s naming convention applied to all equipment.	
6.6.2	<b>LAN, UPS and Wireless Access Points</b>	<b>NOT REQUIRED</b>
<b>6.6.3</b>	<b>LCD Flat Panel TV</b>	<b>REQUIRED</b>
6.6.3.1	Contractor will provide system design and engineering functions in order to implement a fully functional media wall solution that meets the outlined requirements and specifications.	
6.6.3.2	Contractor will provide project management and coordination of the implementation and all aspects of the installation of the media wall.	
6.6.3.3	Contractor shall develop a detailed Project Plan, indicating levels of effort and schedules required to effectively accomplish all requirement and duties. Contractor shall be responsible for providing weekly status reports to the Project Manager indicating the progress of Tasks and specifically address any elements of the Project Plan that differs from the original schedule.	
6.6.3.4	Contractor will provide CAD drawings - design and build documentation in hard and electronic copies.	
6.6.3.5	Contractor will perform system programming, in-house system configuration, setup and testing. Testing and validation will be confirmed by LA County representatives for final sign-off of project.	

- 6.6.3.6 Contractor will provide training of internal staff on use, operation and support of media wall and related systems.
- 6.6.3.7 Media wall systems will include displays, hardware, wall processor, software, mounting, cabling, power supplies and all components needed to provide a complete solution.
- 6.6.3.8 Media wall solution will contain integrated software that provides the setup, configuration and monitoring (health-status) of the media wall. Additionally, software will provide a user interface (GUI) with capabilities to manage and control the display content via multiple users and access levels; configurable by the use of templates.
- 6.6.3.9 Media Wall system will include redundancy options for supporting failures, including n+1 components; such as power supplies (which will be hot-swap in design) and replaceable.
- 6.6.3.10 Contractor will setup pre-fabricated media wall structure with supports that will support media wall displays.
- 6.6.3.11 Contractor will attach mounts and mount displays, which will have fan-less operation, with remote power supplies located within 200 feet and connections to remote processor to be located remotely within 200 feet.
- 6.6.3.12 Contractor shall run necessary cabling to those remote locations for the connection of the remote media wall processor and power supply hardware. Power will be connected to an existing UPS system feeding the designated racks.
- 6.6.3.13 Contractor shall locate remote power supplies and media wall processor will be in the AV Media Control Room (HOA 4th Floor), where the contractor will locate and rack those systems.
- 6.6.3.14 Contractor will provide warranty and support services as outlined in the specifications in order to provide on-going support for the media wall. Contractor will provide an allocation (10%) of spare displays and cabinets in order to facilitate the needed replacement for near and long-term failures.
- 6.6.3.15 Contractor will be a local distance - within one hour driving time to provide the necessary service and support capability; Contractor will be an authorized dealer of manufacturer for both sales and installation of product; Contractor will be an authorized direct purchaser of product from the manufacturer and will be registered with manufacturer for the sale and purchase of product.
- 6.6.3.16 Contractor will meet outlined specifications for hardware and software systems and all components - as detailed in Section 13.0 of this document. No product or specification equivalents will be accepted or allowed. Requirements and specifications must be met exactly as outlined in Section 13.0.
- 6.6.3.17 Contractor is responsible for all acts and services required to provide ISD with a fully functional System in accordance with the Manufacturer's Specifications, whether or not the acts or services required to do so are specifically identified in this Statement of Work, and unless otherwise expressly stated, all work described in this Statement of Work shall be performed by Vendor.
- 6.6.3.18 Contractor shall assess the County of Los Angeles Kenneth Hahn Hall of Administration (500 West Temple Street LA California 90012 Board Hearing Room - 381B) to acclimate themselves with physical installation site. Contractor to confirm measurements and ensure the feasibility of the proposed design concept it relates to site requirements (e.g., physical dimension, power, AV inputs, etc.). Contractor shall document any physical site augmentation needs and/or proposed retrofit specifications.
- 6.6.3.19 Contractor shall clean the Board Hearing Room /AV Media Control Room work sites and dispose all trash in appropriate trash disposal area. Contractor shall work with HOA staff to identify proper trash disposal area. The day prior to a Tuesday Board Meeting, Contractor shall stop work and

ensure all work areas within the Board Hearing Room are free of debris, and that all materials are properly stowed away until work resumes the day after the Board meeting.

6.6.3.20 A Project Manager (PM) will be designated on both the ISD side, as the Vendor side.

PMs will work together to organize and coordinate the following tasks including but not limited to:

- Regular status meetings with meeting minutes provided by PM.
- The procurement, staging and delivery of the equipment purchased.
- The scheduling of VENDOR resources as it relates to on-site visits, web-ex sessions, and/or meetings or conference calls of any kind.
- The coordination of required resources at the HOA Facilities and associated tasks such as requiring access to production equipment, connecting or installing of any new appliances, software, or related licensing.
- Act as the single point of contact for change control, escalation and acceptance activities for the implementation team efforts defined within the SOW.
- Overall project management for the implementation services

6.6.3.21 During the Design Phase the Contractor shall propose an Installation Plan and Schedule to the EXECUTIVE OFFICE project manager or designee. It is necessary for the Contractor to propose a methodology for installation that allows for no disruption and minimal impact, to the normal operations of the Board Room meetings. This may include the Contractor to work extended shifts including evenings and weekends to meet specified installation timelines.

## **7.0 PROJECT MANAGEMENT and CHANGE ORDERS**

- 7.1 Contractor's Project Manager shall be responsible for all work performed by their staff or their subcontractors. On-site supervision of Contractor and/or subcontractor personnel shall be the responsibility of the Contractor's Project Manager.
- 7.2 Contractor's Project Manager and cable subcontractor shall be responsible for attending and participating in various meetings including those for planning, construction meeting, activity and resource coordination, quality control, and scheduling.
- 7.3 Contractor's Project Manager shall submit written **weekly** status reports, via email, to the ISD Project Manager with copies sent simultaneously to the ISD Project Manager's supervisor and to the Section Manager, Telecommunication Projects Management Section. Reporting shall commence from the project "Kick-off" meeting and continue until the provisions of Paragraph 10.0, Test/Acceptance, have been satisfied. The purpose of the report is to control expenditures and ensure the timely provision and installation of deliverables. The status report should describe the progress in achieving the tasks in the PIP (See Paragraph 5.0, General Conditions and Requirements). The Contractor must notify the County in the status report of any task for which the Contractor is responsible that the Contractor has not completed as scheduled. Any difficulties or issues that could jeopardize completion of the project as scheduled must be identified, with recommendations for resolution. As necessary, the PIP will be updated and relevant updated portions attached to the status report.
- 7.4 **Change Orders**
- 7.4.1 Change Order Budget shall only be utilized for any changes in project scope requested by the ISD project manager and/or Customer representative with written confirmation.
- 7.4.2 Proposed project schedule is based on initial construction schedule provided by the construction project team. Contractor's project manager shall be responsible monitoring construction schedule

throughout implementation phase in order to evaluate and assign Contractor's resources and sub-contractors accordingly. Change in project schedule does not constitute a change order.

7.4.3 Cabling and other equipment installation, if applicable, is based on field conditions and communications facilities as established during the bid conference walk-thru. Any additional changes in materials and associated labor required by Contractor during the installation phase shall be absorbed by the Contractor and shall not be billable to the County.

7.4.4 Change Order Budget shall only be utilized for any changes in project scope requested by the ISD Project Manager and/or Customer Representative with written confirmation. Change Order amount shall only be for change in scope only. Any Contractors activities related to the Change Order including project management, engineering and consultation shall not be billable to the County. A lump sum project management shall be billed in 1 lot upfront on Attachment A.

## **8.0 TRAINING**

8.1 VENDOR shall provide at least 16 hours (4-days: 4-hour sessions) of onsite technical and end-user training. Training shall incorporate two (2) components: a Tech Training component with troubleshooting the Videowall, VCS, and Control System; and end-user training to navigate and use the software component of the system.

## **9.0 DOCUMENTATION**

Contractor shall provide literature, instruction manuals, warranty materials, drawings, wiring diagrams, system schematic diagrams, programming setups, software, and all other documentation that comes with each equipment item. The following documentation deliverables are required where applicable to this project:

9.1 Contractor shall provide and deliver to the ISD Project Manager three (3) sets of all documentation on both electronic (CD/DVD) and printed media (except for cable test results where only one (1) printed copy is required).

9.2 When distribution cabling (fiber or copper) has been installed by the Contractor, Contractor shall update existing County provided riser diagrams (if available) or provide new diagrams for those facilities installed by the Contractor. The riser diagram shall include cable length measurements and number pairs or strands.

9.3 When station cabling (voice and data) has been installed by the Contractor, Contractor shall provide a cable inventory in a format provided by the County. The inventory shall list the cable ID, the user department, the room number where terminated, and the wiring closet where terminated (block id or patch panel id).

9.4 Where Audio/Video equipment has been installed by the Contractor, Contractor shall provide a layout of each wiring closet installation. A "spider diagram" shall be provided showing each piece of equipment and its relationship to other installed equipment to which it is connected. The Contractor shall provide a listing of the configuration of each switch installed. A listing of equipment shall be provided by the Contractor listing the equipment installed by description and manufacturer part number, installed location, serial number, and warranty start and end dates (if applicable).

9.5 Where equipment or wiring is installed by the Vendor, Vendor shall furnish a cut-sheet detailing the connections between the equipment and the station wiring. The County shall provide the Contractor with a form (Excel spreadsheet) for this purpose.

9.6 All drawings and diagrams shall be submitted on paper no larger than 11"X17" and shall also be submitted on CD/DVD formatted as VISIO 2010 or AutoCAD 2010.

9.7 All other documentation except manuals and test results shall also be submitted on CD/DVD using Microsoft Word 2010 and/or Excel 2010 formats.

- 9.8 A single copy of Test Results shall be submitted in loose leaf, three ring binders, tabbed according to Test Results where cabling terminates.
- 9.9 Upon conclusion of the project, the Contractor shall update the PIP, providing: "as built" drawings & plans indicating equipment locations; elevation rack layouts; riser diagrams; wiring diagrams, equipment interconnect drawings, configuration and programming setups, and "As Built" Bid Schedule of Materials and Services. This schedule is the net result of compilation of Attachment A and all change orders and reflects the actual materials and services delivered to the County.

## **10.0 TEST/ACCEPTANCE**

The following test/acceptance deliverables are required where applicable to this project.

- 10.1 VENDOR shall furnish and install a complete and operational system. Prior to ISD acceptance and transfer of the completed Video wall Presentation System, VENDOR shall demonstrate that the entire system is operational including all individual devices and specified control functions to the satisfaction of the ISD project manager or designee.
- 10.2 VENDOR/ISD shall test all the newly installed equipment and verify that the systems are fully operational, fully functional, and completely installed.
- 10.3 ISD shall accept the various systems installed and make payment to the Contractor only after ISD has received all deliverables specified and the Contractor has fulfilled all obligations of the Work Order. This shall require, among other things, that the Contractor:
- Has provided all materials and services included in the Attachment A and all change orders.
  - Has provided to the ISD Project Manager a final "As Built" Schedule of Materials & Services.
  - Has tested all systems and provided test results to ISD indicating operability in accordance with the specifications.
  - Has completely provided to the ISD Project Manager the documentation as required by Section 9.0, Documentation.
  - Has cleared all deficiencies (Punch List items).
  - Has turned over to ISD any spare parts as specified in the WOS.
  - Has restored to original condition any damaged County premises, premise facilities, or equipment caused by Contractor personnel.
  - Has cleared all material and debris from the work site and generally restored the work site to an orderly condition.
  - Has removed all abandoned or non-working equipment, wiring and mountings from the TRs, ducts, and conduits.
  - Has contacted and made arrangements for the ISD Maintenance Supervisor to determine the disposition of existing equipment.
  - Has dressed all cables, patch cables, and power cords after user migration.
  - Has fire stopped required conduits and path-ways.
  - Successful FULL system and functionality testing



**11.0 WARRANTY, MAINTENANCE & SUPPORT****WARRANTY**

- 11.1 While the ISD may oversee the installation of the equipment, its physical installation must be performed by the VENDOR. The Warranty offered by the VENDOR shall protect the customer from product or system failure during the term of the agreement. This includes:
- Three (3) Year Gold Program Onsite Service and Maintenance Agreement with 8 Hour Onsite Service Response Time.
  - 1 Hour Telephone Response Time.
  - 2 Scheduled Onsite Preventative Maintenance Visits/Checkups per Year.
  - Unlimited on-site support incidents / 8hr. response.
  - Email Support 2-hr. response time Monday-Friday 8am-5pm PST.
  - Parts Repair and/or Replacement.
  - Remote Support Setup.
  - Software/Hardware Reliability Updates and Patches.
  - Shipping to/from Manufacturers.
  - Priority Service Status.
  - 800# Toll Free and Email Technical Support.
  - Monday-Friday 8am-5pm PST Hours of Service of parts.
- 11.2 During the warranty period, the Contractor shall provide maintenance support services during the normal working days Monday through Friday (between the hours of 8:00 a.m. and 5:00 p.m., excluding County holidays). County offices and facilities are generally open and accessible to conduct business on normal working days during these hours.
- 11.3 Both during the warranty period and during installation and acceptance testing, the Contractor will respond to any service calls within a 4-hour time period. The County shall measure this period from the time the Contractor receives notification to the time the Contractor service personnel arrive on- site or Contractor begins providing service via remote access. Repair must occur within one hour of arrival on site of the Contractor's service personnel or the start of the remote access service.

**MAINTENANCE**

From the beginning of the project until the County accepts the system, the Contractor shall be responsible for troubleshooting and maintenance of the system including replacement of failed components.

**SUPPORT**

During the warranty period, the contractor shall make a minimum of one site visit per month to verify proper operation of the equipment and systems and make any adjustments and/or repairs to the equipment and/or systems. This is in addition to the warranty requirements as stated above.



**12.0 MOVES, ADDS, AND CHANGES ACTIVITY (MAC)**

- 12.1 During the warranty period, the Contractor may be required to perform MAC to the project.
- 12.2 Quote below the labor rates for providing services during the warranty period and for providing a technician to do on-site installations. The number of hours listed below is to be used as-needed, at County's sole discretion, and is not guaranteed and therefore, is subject to change during the warranty period.

(Navigate Table with Tab/Cursor)		(Fill In Below)		(Calculated)
		(County Estimated)	(Fill in Box)	(2 Click + OK)
Required	Job Title	Hours	Hourly Rate	Hrs. x Rate
<input checked="" type="checkbox"/>	On-Site Technician	100		\$0.00
<b>Total</b>				<b>\$0.00</b>

- 12.3 The above information **will not** be used in the evaluation and selection of the successful bidder. The County may elect to perform none, some or all of the MAC work; thus, none of this work is guaranteed to the Contractor.

**13.0 OTHER REQUIREMENTS & SPECIFICATIONS      REQUIRED**

- 13.1. Pixel Pitch – 1.875.
- 13.2. Resolution per cabinet – 320x180.
- 13.3. Pixel Density: 284,444 / sq m | 26,426 / sq ft.
- 13.4. LED surround: Black Solder Mask.
- 13.5. Total Number of LED Cabinets – 144.
- 13.6. LED Cabinet Configuration - 12 W x 12 H .
- 13.7. Width (feet) – 23.62 W.
- 13.8. Height (feet) – 13.29 H.
- 13.9. Depth (feet)\*\* - 0.31 D.
- 13.10. Display Area (Square feet) – 313.88 ft <sup>2</sup>.
- 13.11. Diagonal – 325.23 in.
- 13.12. Total LED Video Wall Weight\*\*.
- 13.13. (LED Cabinets and Mounts) – 3263 lbs.
- 13.14. Total Resolution (W x H) 3,840 W x 2,160 H.
- 13.15. Bezel width: Zero (seamless).
- 13.16. LED type: Commercial grade 3-in-1 Black SMD.
- 13.17. LED display cabinet size: 600x337.5x95mm | 23.62x13.28x3.74in.
- 13.18. LED display cabinet diagonal: 688.5mm | 27.1in.
- 13.19. Total installed depth (max.): 4in | 101.6mm - ADA Compliant.
- 13.20. LED display cabinet weight: 6.6kg | 14.5lb.
- 13.21. Total install weight per LED cabinet and mount: 9.8kg | 21.5lb.
- 13.22. Brightness: >800 nits.
- 13.23. Brightness uniformity: ≥97%.

- 13.24. Color uniformity:  $\geq 97\%$ .
- 13.25. Color gamut: 100% NTSC.
- 13.26. Colors: 16.7 million.
- 13.27. Color temperature: 3200 – 9300K, adjustable.
- 13.28. Color processing: 10 bits.
- 13.29. Contrast ratio:  $\geq 6000:1$ .
- 13.30. Viewing angle, horizontal:  $\geq \pm 80^\circ$ .
- 13.31. Viewing angle, vertical:  $\geq \pm 70^\circ$ .
- 13.32. Input frame rate: 50, 60Hz.
- 13.33. Adjustable mount: Integrated into LED Cabinet.
- 13.34. Installation and service: Front.
- 13.35. LED display cabinet adjustment: 6-axis integrated
- 13.36. Mounting: Fixed, wall.
- 13.37. Regulatory: NRTL, FCC Class A, CE Class A, WEEE, EN60950, CISPER22/2010.
- 13.38. Americans with Disability Act (ADA) compliance: Yes.
- 13.39. TAA compliance: Yes.
- 13.40. Power supply type: 1U and 1.5U rack mount.
- 13.41. Power redundancy: n+1 Redundant Power Supplies (optional).
- 13.42. Hot swappable power supply: Yes.
- 13.43. Line voltage: 100-240 Volts AC, 50/60Hz auto switching.
- 13.44. Cabinet Video input type: 2xHDMI in, 2xHDMI out, HDCP Compliant.
- 13.45. Cabinet Video input max./ resolution: 1920x1080 @ 60 Hz.
- 13.46. Video signal extension: CAT6 (HDBaseT), Fiber Optic (optional)
- 13.47. Video signal redundancy: Optional.
- 13.48. Video extension redundancy: Optional.
- 13.49. Display control: Control Software (included).
- 13.50. Control input: RS232 or Ethernet.
- 13.51. Intel Core i7.
- 13.52. 32GB DDR4 DRAM.
- 13.53. Microsoft Windows 10 LTSC
- 13.54. 3rd Generation PCIe switched fabric.
- 13.55. Dual 250GB SSD in RAID 1 configuration.
- 13.56. Maximum (per graphics card) 1920x1080 @60 Hz for 12 display cabinets; 3840x2160 @30 Hz for 6 display cabinets.
- 13.57. 2 x USB 3.0; 6 x USB 2.0.
- 13.58. 2 x 10/100/1000 Ethernet.
- 13.59. 12 x DisplayPort Outputs (1920x1080 @60 fps).
- 13.60. 11 slots/chassis; 8 lanes/slot.
- 13.61. Integrated DVI output for screen control.

- 13.62. 12 x HD (1920x1080 @60 fps) resolution, HDCP 1.4; 6 x 4K (3840x2160 @ 30 fps) resolution, HDCP 1.4.
- 13.63. LED display cabinet must come standard with its own mounting system, designed exclusively for the LED video wall product.
- 13.64. LED display cabinet must mount directly to a wall without the need for additional mounting structure.
- 13.65. The LED display cabinet must include an integrated mounting system that allows for 6-axis of adjustments to achieve a perfectly aligned LED video wall.
- 13.66. The LED video wall must include 2 levels of Z-axis adjustment: one at a larger adjustment level one for fine-grain adjustments.
- 13.67. The installed depth of the LED video wall must be less than 4 inches. The install depth must be compliant with the Americans with Disabilities Act (ADA) for protrusion under 4 inches.
- 13.68. LED video wall must be able to fully install and align from the front with no need for rear access.
- 13.69. All replaceable LED video wall components including cabinets, modules, components, and cables must be accessible and replaceable from the front of the wall with no need for rear access, and no need to remove or move good panels.
- 13.70. Must contain positive locking features that ensures the LED video wall never shifts and enables safe installations with forward tilt (up to 10°).
- 13.71. The LED display cabinet must weigh less than: 6.6kg (14.5lb) or 32.6kg per m<sup>2</sup>.
- 13.72. The LED display cabinet with mounting structure must have combined weight less than: 9.8kg (21.5lb) or 48.4kg per m<sup>2</sup>.
- 13.73. The LED video wall must operate without fans.
- 13.74. The LED display cabinet must be able to operate in a -10 to 40°C (-14 to 104°F) environment.
- 13.75. The LED display cabinet must be able to operate in a 10-80% RH non-condensing environment.
- 13.76. The LED display cabinet must be able to be stored in a -20 to 60°C (-4 to 140°F).
- 13.77. The LED display cabinet must be able to be stored in a 10-85% RH non-condensing environment.
- 13.78. Meet or exceed IP30 protection standard.
- 13.79. The LED and LED display cabinet must be designed for 24/7 extended operation.
- 13.80. The LED video wall must support horizontal viewing angle ≥80° at ≥90% brightness, and vertical at ≥70° at ≥80% brightness.
- 13.81. All pitches in the family of LED display cabinet must have exactly the same physical dimensions.
- 13.82. An LED display cabinet must be capable of being replaced without changing the power supply module or electronics module.
- 13.83. The surface of the LED display cabinet must be low reflectance in well lit environments.
- 13.84. SMD LEDs in the LED display cabinet must be black variety.
- 13.85. The LED video wall must have the capability to inputting and displaying 4 HDMI 2.0 inputs and 1 DisplayPort 1.2 input.
- 13.86. The LED cabinet must be able to accept multiple high bandwidth inputs with a pixel clock up to 660Mhz and spread it across multiple displays.

- 13.87. The LED video wall must include seam correction software to electrically compensate for any visible mechanical dark or bright lines.
- 13.88. Includes Windows®-based control software that allows the user to configure the LED video wall and optimize its visual performance. Software must be pre-loaded with test patterns and allow for adjustments of brightness, RGB and Gamma Gray scale.
- 13.89. The LED cabinet must come with setup and control software that allows you to configure and control the source position, sizing, and scaling on the video wall.
- 13.90. The electronics and power supplies for the LED Cabinet must be removed from the LED cabinet and placed in a rack mount location that is conveniently placed for service and installation.
- 13.91. The electronics for the LED video wall must be co-located next to the content sources.
- 13.92. The display must be HDCP 2.2 compatible and be capable of passing the licensing key to other displays in the array when looping the signal through (daisy chaining).
- 13.93. The display must have IR remote control for access to command functions by an on-site operator through an on-screen menu.
- 13.94. The display must contain a minimum of 256 preset memory slots in which a source configuration can be saved and recalled.
- 13.95. The display must be able to automatically detect and sync to any incoming selected source within the specified operating range without user intervention.
- 13.96. The display must be capable of accepting and passing through RS-232 control commands to an array of displays. The display must be capable of setting a unique unit identification number for acceptance of unit specific RS-232 commands and address the array globally.
- 13.97. The LED video wall must have a built-in option for control via LAN.
- 13.98. The LED video wall must be able to be adjusted to a range of color temperatures between 3200 and 9300 K.
- 13.99. The display must be capable of accepting over 175 different mode timings and syncing without user intervention.
- 13.100. The Power supply module and video controller electronics need to have diagnostic and status LED's that aid with setup and troubleshooting.
- 13.101. The display must be capable of accepting input resolutions of VGA (640x480) to 4k (3840x2160) and scaling an image across various sections of an LED video wall, or an entire LED video wall up to 32x32 screens.
- 13.102. The display must be able to take any one of its inputs and down scale it in a window within a display.
- 13.103. The video wall must be able to genlock to an external sync such as a house sync.
- 13.104. Must be able to synchronize any size video wall to a single video source connected to the video wall.
- 13.105. The display must have locking internal cable connections.
- 13.106. The LED video wall must be configurable to support redundant video cabling.

- 13.107. The display must incorporate a Cat 6 solution that allows the electronics and source to be placed up to 200ft away from the displays with no 3<sup>rd</sup> party extension devices.
- 13.108. The display must incorporate a video transmission scheme that utilizes Fiber Optic cabling between the off-board electronics components and the display connectivity.
- 13.109. The Fiber Optic video extension should use SPF+ Multimode Fiber transceivers with support for single mode as well.
- 13.110. The display must be capable of adding, removing, or changing source inputs without disrupting the LED video wall.
- 13.111. The LED video wall must be powered by a remote power supply module at up to 200ft (61m) away from the wall.
- 13.112. There can be no need for AC power requirement behind the video wall.
- 13.113. The LED video wall must have a redundant hot-swappable power supply module built in that will allow for continuous operation in the case of a power supply failure.
- 13.114. The power supply must have a low power standby mode that reduces the power consumption when the unit is not in use.
- 13.115. The power supply must include diagnostic indicators
- 13.116. The display manufacturer must offer a service policy that allows a replacement LED display cabinet to be shipped out within 24 hours.
- 13.117. The video wall may be covered by warranty for up to 5 years including extensions. The extended warranty is optional.
- 13.118. Must be installed by LED MFG. No 3rd party installation services.

**14.0 FINANCING****NOT REQUIRED****15.0 ATTACHMENT A - ORIGINAL BID SCHEDULE OF MATERIALS & SERVICES**

- 15.1 Submit bid/pricing information using Attachment A.
- 15.2 The Eligible Contractor is requested to include in the labor/service column of Attachment A, a complete itemization of labor pricing for each item of material listed. Exceptions shall be for miscellaneous items that are integral parts of a larger assembly such as minor cables, tie-wraps, labels, angle brackets, bolts, and documentation.
- 15.3 All other items listed with zero dollar amounts in the labor/service column of Attachment A shall be construed as furnished and installed by the Contractor at no cost to the County.
- 15.4 Transmit Attachment A, via e-mail to [tesma@isd.lacounty.gov](mailto:tesma@isd.lacounty.gov) as described on Page 1 of this WOS.

**END OF STATEMENT OF WORK**